

Listing of Claims

1 (Currently Amended) ~~A In controlling a reverse data rate by a mobile station of a mobile communication system supporting a H-ARQ system, a reverse data rate control method comprising the steps of:~~

receiving a first grant message including reverse data rate control information and application range indication information from a base station; and

controlling the reverse data rate according to the reverse data rate control information included in the first grant message based on the application range indication information, wherein if the application range indication information indicates that contents of the first grant message are to be applied to [[a]] corresponding ARQ channel at a moment of receiving the grant message only, less than all ARQ channels in an ARQ-channel unit group included in a first period of time, then:

an application range of the contents of the first grant message is to be limited to a prescribed range, and

if a non-acknowledgement (NAK) signal is received from the base station over one of said less than all ARQ channels in the ARQ-channel unit group, a packet is to be retransmitted at a reverse data rate indicated in a second grant message received before the first grant message, instead of at a data rate indicated in the first grant message even if receiving a NAK signal from the base station at a time point of receiving the grant message.

2. (Original) The reverse data rate control method of claim 1, wherein the reverse data rate control information is a maximum encoder packet size (EP-SIE).

3. (Currently Amended) The reverse data rate control method of claim 1, wherein the application range indication information includes:

ALL_ACID_IND information indicating whether the first grant message is to be applied to all or fewer than all the entire ARQ-channels in the ARQ-channel unit group, and

PERSISTENCE information indicating whether the first grant message is to keep keeps being applied to one of said less than all the a specific ARQ-channels in the ARQ-channel unit group.

4. (Currently Amended) The reverse data rate control method of claim 1, wherein the prescribed range corresponds to said less than all the ARQ channels in the is an ARQ-channel unit group.

5. (Currently Amended) The reverse data rate control method of claim 2, wherein the reverse data rate is determined within a range of authorized_TPR corresponding to the maximum encoder packet size (EP-SIE) included in the first grant message.

6. (Currently Amended) A The reverse data rate control method of claim 3, comprising:

receiving a first grant message including reverse data rate control information and application range indication information from a base station; and

controlling the reverse data rate according to the reverse data rate control information included in the first grant message based on the application range indication information, wherein if the application range indication information indicates that contents of

the first grant message are to be applied to [[a]] corresponding ARQ channel at a moment of receiving the grant message only, less than all ARQ channels in an ARQ-channel unit group included in a first period of time, then:

an application range of the contents of the first grant message is to be limited to a prescribed range, and

if non-acknowledgement (NAK) signals are received over first and second ones of said less than all ARQ channels in the ARQ-channel unit group, packets corresponding to the NAK signals are to be retransmitted at one or more reverse data rates indicated in a second grant message received before the first grant message, instead of at a data rate indicated in the first grant message wherein if values of the ALL_ACID_IND and the PERSISTENCE are TRUE and FALSE, respectively, the contents of the grant message are applied within the ARQ channel unit group.

7. (Currently Amended) The reverse data rate control method of claim 3, wherein [[if]] each value of the ALL_ACID_IND and the PERSISTENCE is FALSE, respectively, the contents of the grant message are applied to a corresponding ARQ channel within the ARQ channel unit group only.

8. (Original) The reverse data rate control method of claim 1, wherein a channel carrying reverse data is a reverse-packet data channel (R-PDCH).

9. (Currently Amended) The reverse data rate control method of claim 1, wherein the first grant message is received over a forward-grant channel (F-GCH).

10. (New) The reverse data rate control method of claim 1, wherein the contents of the first grant message are to be applied to only one ARQ channel in the ARQ-channel unit group.

11. (New) The reverse data rate control method of claim 1, wherein the prescribed range corresponds to only one ARQ channel in the ARQ-channel unit group, the NAK signal received over said only one ARQ channel.

12. (New) The reverse data rate control method of claim 1, further comprising:
receiving a third grant message after the first grant message;
receiving an acknowledgment (ACK) signal during a second period of time after the first period of time, the ACK signal received over one of said less than all ARQ channels; and

determining a reverse data rate based on contents of the third grant message or command contents of a rate control bit, wherein the second period of time includes a repeated progression of the ARQ channels in the ARQ-channel unit group.

13. (New) The reverse data rate control method of claim 6, wherein the application range indication information includes:

ALL_ACID_IND information indicating whether the first grant message is to be applied to all or fewer than all the ARQ-channels in the ARQ-channel unit group, and
PERSISTENCE information indicating whether the first grant message is to keep being applied to one of said less than all the ARQ-channels in the ARQ-channel unit group.

14. (New) The reverse data rate control method of claim 13, wherein the values of ALL_ACID_IND and the PERSISTENCE are TRUE and FALSE, respectively.

15. (New) The reverse data rate control method of claim 6, further comprising:
 - receiving a third grant message after the first grant message;
 - receiving acknowledgment (ACK) signals during a second period of time after the first period of time, the ACK signals received over the first and second ARQ channels; and
 - determining a reverse data rate based on contents of the third grant message or command contents of a rate control bit, wherein the second period of time includes a repeated progression of the ARQ channels in the ARQ-channel unit group.